



(11)

EP 0 660 615 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
24.04.1996 Bulletin 1996/17

(51) Int. Cl.⁶: **H04N 7/36**, H04N 5/14

(43) Date of publication A2:
28.06.1995 Bulletin 1995/26

(21) Application number: 94120543.7

(22) Date of filing: 23.12.1994

(84) Designated Contracting States:
DE FR GB NL

(30) Priority: 24.12.1993 JP 345916/93

(71) Applicant: **NEC CORPORATION**
Tokyo (JP)

(72) Inventor: Hayashi, Naoya,
c/o NEC Corporation
Tokyo (JP)

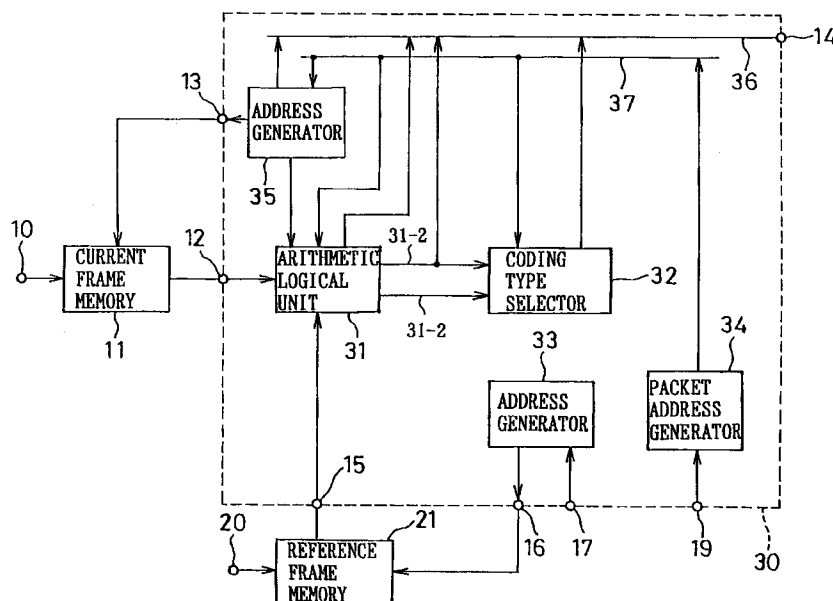
(74) Representative: **Betten & Resch**
Reichenbachstrasse 19
D-80469 München (DE)

(54) Motion prediction processor and motion prediction apparatus

(57) In the motion prediction processor outputting the encoding type designating the inter-frame or intra-frame prediction coding and the motion vector in case of performing the inter-frame prediction coding, the coordinate values of the currently processed block are outputted and an offset is supplied to the address for reading out the reference region from the reference frame memory. The evaluation data for estimating the coding quantity in case of performing the inter-frame prediction coding is also outputted. An n number of the motion pre-

diction processors are arranged and respectively associated with reference frame memories. The reference regions different from the same block are supplied to the n motion prediction processors and the motion prediction processor with the least evaluation data is selected from among the motion prediction processors whose reference regions are comprised within the picture. The motion vector outputted by the thus selected processor is corrected and outputted.

Fig. 1





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 94 12 0543

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	EP-A-0 535 746 (PHILIPS ELECTRONICS UK LTD ;PHILIPS NV (NL)) 7 April 1993 * column 2, line 18 - line 49 * * column 7, line 55 - column 8, line 10 * * column 9, line 5 - line 21 * * column 10, line 21 - column 12, line 3 * * column 15, line 42 - column 16, line 16 * * figure 2 *	1,4,7,10	H04N7/36 H04N5/14
A	SIGNAL PROCESSING OF HDTV, 3, TURIN, SEPT. 4 - 6, 1991, no. WORKSHOP 4, 4 September 1991 YASUDA H;CHIARIGLIONE L, pages 173-179, XP 000379952 VAN REVENTLOW C ET AL 'CHIP SET FOR MOTION ESTIMATION BASED ON PHASECORRELATION AND BLOCKMATCHING' * page 176, line 1 - page 177, line 5 * * figures 1,2 *	1,4,5,7,10	
A	EP-A-0 288 963 (MITSUBISHI ELECTRIC CORP) 2 November 1988 * page 16, line 7 - line 47 * * figure 2 *	1-3,7-9	TECHNICAL FIELDS SEARCHED (Int.Cl.6) H04N
A	EP-A-0 424 026 (SONY CORP) 24 April 1991 * page 16, line 28 - line 58 * * figures 1,10A *	5,6	
A	ELECTRONIC DESIGN, vol. 41, no. 20, 1 October 1993 page 123/124 XP 000400307 BURSKY D 'CODEC COMPRESSES IMAGES IN REAL TIME' * page 124, left column, paragraph 2 * * figure 2 *	1,4,7,10	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 9 February 1996	Examiner Dippel, U
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	

EPO FORM 1503 01.82 (P04C01)